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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,788	03/26/2001	Darrell L. Sparks	2303-1-015N	7795

7590 07/12/2006

KLAUBER & JACKSON
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EXAMINER

AHMED, SHEEBA

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,788

Applicant(s)

SPARKS ET AL.

Examiner

Sheeba Ahmed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-29, 31, 32, 34-43, 45, 47-51, 53 and 55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-29, 31, 32, 34-43, 45, 47-51, 53, and 55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 26 and 27 have been amended in the above-identified application. Claims 1-25, 30, 33, 44, 46, 52, and 54 are cancelled. **Claims 26-29, 31, 32, 34-43, 45, 47-51, 53, and 55 are pending.**

The rejection of claims 26-29, 31, 32, 34-43, 45, 47-51, 53, and 55 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement has been overcome by the amendment of the particle size range in independent claims 26 and 27.

A new prior art rejection has been applied. Any inconvenience to the Applicants is regretted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 26-29, 31, 32, 34-43, 45, 47-51, 53, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trabert et al. (US 5,318,737).

Trabert et al. disclose a plastic composite made by feedblock coextrusion of a molten acrylic capstock (***corresponding to the capstock composition layer of the claimed invention***) overlying and bonded to an underlying structural plastic ply

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(corresponding to the core layer of the claimed invention) (Abstract). The thickness of the capstock can be 0.2 to 2.5 mm (*equivalent to 200 to 2500 microns*) and the thickness of the structural plastic ply can be 1.5 to 10mm (Column 1, lines 38-41). The acrylic capstock composition comprises (A) 40 to 88 wt.% of a copolymer of methyl methacrylate and a minor amount of a lower alkyl acrylate having a molecular weight of at least 125,000 Daltons and (B) 12 to 60 weight % of an acrylate-based impact modifier, such as one having a core-shell structure and composed of methyl methacrylate, in the form of discrete particles **(corresponding to the discrete particles of the claimed invention)** (Column 4, lines 35-68). The copolymer can comprise 88 to 99.9 wt.% of methyl methacrylate and 0.1 to 12 wt.% of the alkyl acrylate (Column 6, lines 19-22). Examples of the structural plastic ply include polyvinyl chloride, ABS and polycarbonate (Column 5, lines 29-35) and polyethylene, polypropylene, polymethyl methacrylates, and polyethylene terephthalates (Column 9, lines 15-57). Fillers may be added to the acrylic composition and do not exceed 15 weight % of the capstock composition and include barium sulfate and calcium carbonate **(alternately, corresponding to the discrete particles of the claimed invention)** (Column 10, lines 44-63).

Trabert et al., as discussed above, teach that the acrylic capstock composition provides improved properties, such as chemical resistance, to the underlying plastic layer but do not specifically state that the acrylic capstock maybe applied to both sides of the underlying plastic layer and that the discrete particles in the second layer have a particle size of 12 to 60 microns.

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However, it would have been obvious to one having ordinary skill in the art to apply the acrylic capstock composition to both sides of the underlying plastic layer to impart improved properties to both sides. For example, Trabert et al. teach that their composite may be used in fencing (Column 10, lines 17-43) and in such a situation improved properties may be needed on both sides of the underlying plastic layer.

Furthermore, it would have been obvious to one having ordinary skill in the art to optimize the size of the filler material given that large particle size filler materials results in low, i.e., matte or dull finishes *(as evidenced by Smith, US 3,714,107, who teaches that filler materials such as natural ground barium sulfate or calcium carbonate having a large particle size provide a surface with a dull finish; See Column 2, lines 35-45).*).

The Examiner takes the position that the refractive index of the discrete particles disclosed by Trabert et al. inherently differs from the refractive index of the disclosed methyl methacrylate-lower alkyl acrylate copolymer given that the index of refraction is a material property and is dependent on the chemical composition of the material and in this case, the two materials (i.e., the particles and the resin) are chemically different.

Furthermore, the claimed material properties must also be inherent given that the material properties of the plastic sheet are dependent on the chemical composition of the plastic sheet and the plastic sheet as claimed in the instant application and as disclosed by Trabert et al. are identical.


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Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Mondays and Thursdays from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sheeba Ahmed
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July 9, 2006